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ABSTRACT

This study examined whether students with learning disabilities (LD) differed from general education (NLD) students in terms of depressive symptomatology, causal attributions for success and failure, self-concept, and locus of control. Eighty-two students in grades 4, 5, and 6 participated in the study. Subjects were given the Intellectual Achievement Responsibility Scale, the Children's Depression Inventory, the Nowicki-Strickland Locus of Control scale, the Self-Esteem Inventory, the Children's Intervention Rating Scale, and a questionnaire concerning their special education placement. Significant differences were found between the LD and NLD students in all areas. Only locus of control produced a significant difference among grade levels. Analysis indicated that 68 percent of the students were not told why they were placed in special education. Individual differences were present in student perceptions of the special education program. (Contains 29 references.) (DB)

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Social-Emotional Factors in Students with and without Learning Disabilities

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Running Head: SOCIAL-EMOTIONAL FACTORS

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Abstract

The purpose of the present study was to determine whether students with a learning disability (LD) differed from general education (NLD) students in terms of depressive symptomatology, causal attributions for success and failure, self-concept, and locus of control. Eighty-two students in grades four, five and six participated in this study (41 LD and 41 NLD). Significant differences were found between the LD and NLD students in all areas. Only locus of control produced a significant difference among grade levels. General information was also obtained from the students with a learning disability by use of a questionnaire concerning their special education placement. It was noted that 68% of the students with LD were not told why they were placed in special education. Individual differences were present in student perceptions of the special education program. Implications were present for more attention to be given to the negative cognitions of students with learning disabilities. Additionally, possible interventions are discussed in light of the current findings.

Social-Emotional Factors in LD and NLD Students

Each year many school children are referred for evaluation due to reported learning deficiencies. Most of these children have experienced frustration and repeated failure prior to the referral. These feelings often result in poor concentration, motivation, and effort, especially for students with a learning disability (e.g., Dweck, 1986; Sabatino, 1982; Thomas, 1979; Whitley & Frieze, 1985).

As difficulties and failures continue to occur in the academic setting, the students' expectations for future success are likely to be lowered. Depending on perceived control and personal attribution patterns, the academic failure may generalize to other social and personal areas of life. The cycle becomes one of low motivation, declining sense of self-worth, and possible depressive symptomatology. Essentially, the individual becomes entangled in the learned helplessness cycle (Sabatino, 1982; Schneider, 1984; Taylor, Adelman, Nelson, Smith, & Phares, 1989). Children with learning disabilities are at particular risk for these self-defeating behaviors (Omizo & Omizo, 1987).

In a meta analysis of actual causal attribution research, Whitley and Frieze (1985) found successful children tended to make stronger attributions to internal factors (e.g., ability and effort). Unsuccessful children, however, made stronger attributions to external factors (e.g., task and luck). In children identified as having a learning disability, Jacobsen, Lowery, and DuCette (1986) reported similar findings. Students with learning disabilities tended to externalize success and to internalize failure.

As children with learning disabilities experience school-related failures, they may begin to doubt their abilities to succeed. If the student with LD continues to experience failure regardless of the amount of effort exerted, he/she eventually loses motivation (Sabatino, 1982; Thomas, 1979).

Conversely, the student with LD accepts responsibility for his/her failure (Whitley & Frieze, 1985). Since self-responsibility is considered to be a characteristic which develops in children as early as third grade (Crandall, Katkovsky, & Crandall, 1965), academic self-concept can begin to plummet early in the child's life (Dudley-Marling, Snider, & Traver, 1982).

An assumption of too much personal responsibility for failure is also characteristic of depression (Whitley & Frieze, 1985). Children who have experienced repeated failure would seem to be candidates for depression. Research by Hall and Haws (1989) supported the contention that LD children, who by definition have experienced repeated failure, were more susceptible to depression.

Research by Chapman (1988) suggests that more attention needs to be given to negative social-emotional development of students who have experienced failure in the academic setting. The present study was designed to investigate whether students with learning disabilities (LD) differed from regular education students (NLD) in the areas of attributions for success and failure, locus of control, self-esteem, and depressive symptomatology. Additionally, the present study investigated LD students' perceptions of their special education classes.

Method

Subjects

A total of 83 fourth, fifth, and sixth grade students from rural eastern North Carolina school districts were participants in this study. Data from one NLD participant was discarded to have an equal number of LD (n=41) and NLD (n=41) students. LD participants were matched with NLD participants as closely as possible in terms of gender (66 boys and 16 girls), race (62 Caucasian and 20 Black), and grade (28 fourth graders, 32 fifth graders, and 22 sixth graders).

The students with LD were identified based on North Carolina State Department procedures governing special education services (North Carolina Department of Public Instruction, 1990). These guidelines state, in part, that: 1) after interventions have been implemented in regular education or other programs, the student still exhibits learning difficulties; 2) achievement measured in age standard score units is 15 or more points below intellectual functioning; and 3) the disability is not primarily the result of sensory deficits; mental handicaps; behavioral/ emotional handicap; or environmental, cultural, and/or emotional influences. All students with LD were receiving resource services. The majority of the students with LD had received services through special education for between one and two years (n=24). Of the remaining subjects, eight had received services for less than one year, and eight between three and four years. One student received services for more than four years. The NLD students were limited to those students who had never received

special education services nor had been referred for such services.

Instruments

The Intellectual Achievement Responsibility (IAR) Scale (Crandall et al., 1965) is a questionnaire designed to assess children's beliefs related to their control of intellectual-academic successes and failures. The questionnaire has 34 item stems and forces the subject to choose between two alternative attributions, one internal-positive and the other external-negative. An I+ alternative represents the positive events for which the subject assumes responsibility, and an I- alternative represents the negative events for which the subject assumes responsibility.

The normative data for the IAR scale were obtained from younger children in third, fourth, and fifth grades, as well as older children in the sixth, eighth, tenth, and twelfth grades. The test-retest reliability correlations ranged from .65 to .69 for Total I, .47 to .66 for I+, and .69 to .74 for I-. Split-half reliability correlations were .54 to .60 for I+ items and .57 to .60 for I- items.

The validity of the IAR scale was addressed through predictive utility of the scale and evidence was presented in support of the scale's construct validity. For the younger children, Total I scores were significant with both achievement measures and report card grades. For the older children, only occasionally were the IAR scores predictive of achievement scores, but there were significant correlations in the 20's and

30's between Total I and report card grades (Crandall et al., 1965).

The Children's Depression Inventory (CDI) developed by Kovacs (1984) contains 27 item stems with a forced-choice format involving three alternatives. This scale is a modification of the Beck Depression Inventory designed to measure the affective, cognitive and somatic domains involved in depression. The CDI age range is from 8 to 13 years of age, although it has been used with adolescents as well (Weiss, Weisz, Poloitano, Carey, Nelson, & Finch, 1990). The items cover a wide range of experiences which may contribute to depression. The higher the score, the greater the depressive symptoms (Kovacs, 1981). The CDI provides researchers and clinicians with an instrument to systematically investigate depression in children (Reynolds et al., 1985).

Kovacs (1981) found the CDI's internal consistency to be .86; however, Reynolds et al., (1985) reported the reliability to be .90 in a study with regular education elementary students. Regarding the validity of the CDI, Kovacs (1981) reported a correlation of .55 with clinicians' ratings of depression and .66 with self-esteem.

The Nowicki-Strickland Locus of Control (N-SLOC) scale (Nowicki & Strickland, 1973) is a 40 item "yes" or "no" format instrument based on Rotter's definition of the internal-external reinforcement dimension. The scale covers a variety of life experiences and a high score indicates an external locus of control. The reliability of the scale ranges from .68 to .81.

Construct validity was measured by comparing the Nowicki-Strickland with other measures of locus of control. Other

measures of locus of control included the Intellectual Achievement Responsibility scale and the Bialer-Cromwell scale. These were considered significant in the validation process of the Nowicki-Strickland scale (Nowicki-Strickland, 1973).

The Self-Esteem Inventory (SEI) developed by Coopersmith (1987) was designed to obtain a measure of self-concept. A School Form was created for use with students age eight through fifteen and all statements were worded at an eight to ten year age reading level. The School Form has 58 items designed for the subject to indicate whether the statement is "like me" or "unlike me". Eight of the items are considered the "Lie Scale" and high scores tend to account for defensiveness or test wiseness of the subjects. High scores on the SEI indicate high self-esteem (Coopersmith, 1987).

The internal consistency of the Coopersmith SEI was reported by Kimball (1973) to range from .87 to .92 depending on grade level. Other studies reported similar findings (Coopersmith, 1987).

The Children's Intervention Rating Scale (CIRP) developed by Witt and Elliott (1985) was used to assess how students with learning disabilities perceived their special education program. The CIRP is a seven-item scale with a Likert format designed to assess children's acceptability of various interventions. While concurrent and predictive validity studies are lacking, the scale was reported to have a coefficient alpha of .89. Research reports that the CIRP has been utilized in research projects with over 1000 school-age children and has been shown to be a useful

tool in assessing the social validity of various treatments (Elliott, 1986).

Procedure

Upon return of the informed consent, students were administered the previously discussed scales in small groups of no more than six subjects per group. In addition, the students with LD were asked to rate their special education program using the Children's Intervention Rating Scale (CIRP). Raw scores for the CDI, IAR, N-SLOC, and SEI scales were transformed into standard scores with a mean of 100 and a standard deviation of 15 to aid comparisons.

Results

The students with LD completed a questionnaire concerning their knowledge of LD placement and the the CIRP scale to assess their perceptions of the special education program and perceived acceptability of the special education program. Sixty-eight percent of the students with LD reported that they had never been told why they were receiving LD services. Of the 32% who indicated that they were given an explanation of why they were placed in the LD classroom, 69% were told by their mother, 9% were told by a sibling, and 22% weré told by their special education teacher.

The modified CIRP scale (Witt & Elliott, 1985) was used to rate student perceptions of intervention acceptability. Results indicated 58% of students with LD rated the LD class as high in terms of acceptability. Conversely, 15% indicated they did not perceive it as high in terms of acceptability. Twenty-seven percent were neutral in their ratings. Generally, students with LD indicated that being in the LD class was "fair", that it

did not cause problems with their friends, that the methods used by the special education teacher would be good for other students, and that the LD class would help them do better in school. They also indicated that the regular education teacher was not too harsh on them and that there were no better ways than the LD class to deal with their problems. However, the greatest variance was found in these two statements.

Preliminary analyses of the results were obtained by the use of a MANOVA. The CDI, IAR total, the SEI, and the N-SLOC scores served as the dependent variables. Classification (LD vs. NLD) and grade (fourth, fifth, and sixth) served as the independent variables.

Significant Hotelling values were found for the main effects of classification [$F(4,73) = 4.95$, $p < .001$] and grade [$F(8,144) = 5.27$, $p < .000$]. The classification by grade interaction was not significant [$F(8,144) = 1.25$, $p < .273$].

Insert Figures 1 & 2 about here

Follow-up univariate analyses for the main effects of classification and grade were computed. Results of the univariate analyses for classification indicated that all four variables were significant.

Insert Table 1 about here

On the CDI scale, the students with LD obtained significantly higher scores than the students without LD. The

results indicated that the students with LD were at a greater risk for depressive symptomatology.

On the IAR scale, the students with LD obtained significantly lower scores than their NLD counterparts. The students with LD perceived less intellectual-academic control than their NLD peers.

On the SEI scale, the students with LD obtained significantly lower scores than than their peers. Students with LD were more likely to express lower self-esteem.

Students with LD also obtained significantly higher scores on the N-SLOC scale. This indicated that the students with LD had a greater tendency to express an external locus of control than their NLD peers.

Univariate test results for grade indicated that the N-SLOC was the only significant variable. A Scheffe test found that the fourth graders and sixth graders did not differ significantly from each other, but they did differ significantly from the fifth graders in terms of locus of control ($\underline{X}$=101.50, $\underline{SD}$=11.41; $\underline{X}$=108.41, $\underline{SD}$=10.82; $\underline{X}$=89.60, $\underline{SD}$=15.56; respectively). Fifth graders were the most internal and sixth graders were the most external.

Both the IAR scale and the SEI scale had subcomponents that were analyzed. Raw scores were used for these analyses since comparisons between other dependent variables was not a factor. The IAR scale subcomponents were the IAR positive (I+) component and the IAR negative (I-) component. The SEI scale subcomponents were the school-academic (SA), the home-parent (HP), and the

social (SOC) component. The respective component scores served as the dependent variables in the analyses of the corresponding scales. Classification (LD vs. NLD) and grade (fourth, fifth, and sixth) again served as the independent variables for each analysis.

Preliminary analyses for the subcomponents of the IAR scale indicated a significant Hotelling value for the main effect of classification [$F(2,75) = 7.22$, $p < .001$]. The main effect for grade and the interaction of grade by classification were not significant [$F(4,184) = 2.05$, $p = .09$; $F(4,148) = .58$, $p < .677$, respectively.

Follow-up univariate analysis for the main effect of classification indicated that the students with LD obtained significantly lower scores on the I+ than the NLD students ($X = 11.46$, $SD = 2.48$, $X = 13.27$, $SD = 2.66$, respectively). This suggests that the students with LD accept less responsibility and perceive less control over positive events (successes). NLD students obtained significantly lower scores on the I- component than their LD peers [$X = 9.39$, $SD = 2.42$, $X = 10.90$, $SD = 2.47$). This suggested that students with LD accepted more responsibility over negative events (i.e., failures).

Preliminary analysis of the subcomponents of the SEI scale resulted in only one significant Hotelling value for the main effect of classification [$F(3,74) = 3.70$, $p < .016$]. No significant Hotelling values were found for the classification x grade interaction or the main effect of grade [$F(6,146) = 1.04$, $p < .399$; $F(6,146) = 1.99$, $p < .07$, respectively].

Follow-up univariate analysis of the main effect of

classification indicated significant differences between the LD and NLD in terms of school-academic self-esteem [$F(1,76) = 1.89$, $p < .001$]. Students with LD reported lower school-academic self-concepts than their NLD peers ($X = 4.34$ & $M = 5.46$, respectively). There were no significant differences for the home-parent component or the social component [$F(1,76) = .432$, $p < .513$ & $F(1,76) = 1.89$, $p < .173$].

Discussion

Results of the current study indicated that 4th, 5th, and 6th grade students with LD expressed more depressive symptomatology, a greater tendency toward an external locus of control, perceived less control over academic successes, and had a lower self-concept than their NLD peers. When self-esteem was examined further, there were significant differences between LD and NLD students in terms of academic self-esteem but not home-parent or social self-esteem.

Many students (particularly those with a learning disability) who have experienced repeated failure will be likely to develop self-defeating behaviors (Omizo & Omizo, 1987). This can result in poor concentration and lack of motivation with the attitude of "why try" developing (Sabatino, 1982; Thomas, 1979; Whitley & Frieze, 1985). These feelings can lend themselves to depressive symptomatology (Stevenson & Romney, 1984). This does not imply that learning difficulties, or the LD label, necessarily cause depression or that depression causes learning difficulties (Hall & Haws, 1989; Livington, 1985). It does, however, suggest that these factors need to be taken into

consideration when working with students who have a learning disability.

Students with LD obtained lower scores on the IAR scale which reflected lower perceptions of control over academic-intellectual endeavors. Students with LD were less likely than the NLD student to accept responsibility for their successes but were more likely to accept responsibility for their failures.

Students with LD also obtained lower self-esteem scores on the SEI in terms of school-academics than their NLD counterparts. Students with LD have been thought of as immature, but responsibility is a characteristic which develops in children as early as third grade (Crandall et al., 1965). In addition, Chapman (1988) found declines in self-regard beginning in children as young as eight or nine years. It would seem that causal attributions rather than maturity level would offer an explanation for the difference in perceptions of control and responsibility for successes and failures. The failure experiences tend to lead to maladaptive attributional patterns which lowers self-esteem (Ayers, Cooley, & Dunn, 1990; Cooley & Ayers, 1988).

To further highlight the findings of this study, 68% of the students with LD in the present study were not told why they were receiving LD services. Lack of explanations for placement may contribute further to negative cognitive-emotional-social feelings. Feelings of inferiority and lack of control are reinforced by limited explanations for appropriate adults.

The perceptions of students with LD regarding their placement varied. While the majority of the students with LD

participating in the study rated the learning disabilities program as acceptable (58%), 42% were either neutral or negative in their ratings on the CIRP. Research on intervention acceptability has indicated that subjects' perceptions of various interventions may play a very important role in the success or failure of these interventions (Elliott, 1986; Witt & Elliott, 1985).

Omizo and Omizo (1987) noted that social and emotional adjustment problems were often encountered by students with LD. It was stressed that these children were at a disadvantage in school and in life in general (Omizo, Lo, & Williams, 1986). Children with learning difficulties experienced self-defeating belief systems that were found to be lessened through counseling. Interventions have been shown to be beneficial in children as young as fourth grade (Hajzler & Bernard, 1991). However, little emphasis has been placed on social-emotional interventions with students with LD to date (Pray, Hall, & Markley, 1992). The current study suggests the need for social-emotional interventions aimed at reducing the negative cognitions of students experiencing learning difficulties.

Suggestions for further research include investigation of negative cognitive influences among the LD and NLD populations with different grade levels than were assessed in the present study. Studies could focus on differences of cognitions depending on the amount of time LD services have been received and/or the type of LD services (i.e., self-contained, resource,

cross categorical, consultative). Additional research will also be necessary in order to evaluate the effectiveness of various intervention strategies designed to eliminate negative cognitive-social-emotional influences.

The present study was limited in the sampling of students. The students were from rural, southeastern school systems. All the students with LD were receiving resource room services, but the time spent in the LD classroom varied.

The results of the current study indicate that school systems should provide more attention to the emotional and social adjustment of students with LD. Proper attention should help to improve the students negative cognitions and help find a way to improve their sense of academic responsibility. Additionally, accurate explanations should be given to the students with LD concerning the meaning of the term "learning disability" and special education placement. Without doing this perceptions of control and choice are diminished (Schneider, 1984; Taylor et al., 1989) which may contribute further to maladaptive attributional patterns.

Chapman (1988) stated that the negative social-emotional development of children should be addressed by educators. He was referring mainly to children who had experienced learning difficulties. The current research indicated the importance of a student's perception on motivational aspects of achievement and personal adjustment. Children with a learning disability may not understand the cause of their learning difficulties, and most

have also never been given any explanation as to why they go to a "special class".

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Table 1

Follow-up Univariate Analyses for Main Effects of Classification and Grade

Source	Mean Square	df	F	p
Classification				
CDI	2485.66	1,76	12.47	.001**
IARTOT	3370.48	1,76	12.34	.001**
SEITOT	1241.21	1,76	5.37	.023*
N-SLOC	1048.32	1,76	6.63	.012*
Grade				
CDI	157.02	2,76	.79	.459
IARTOT	611.68	2,76	2.24	.114
SEITOT	179.68	2,76	.78	.463
N-SLOC	2473.47	2,76	15.65	.001**

* significant at the .05 level
** significant at the .001 level